

SLOT ARRAY ANTENNA AND PLASMA PROCESSING APPARATUS

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ABSTRACT OF THE DISCLOSURE

10 A slot array antenna, comprising: a power feeding  
waveguide for feeding microwave power; and a plurality of  
rectangular radiating waveguides connected to a plurality  
of windows which are disposed along the longitudinal  
direction of the power feeding waveguide, so as to guide  
the microwave power from the plurality of windows to the  
outside of the antenna. In each of the radiating  
15 waveguides, the interval "d" between the centers of  
gravity of slot pairs or slots is substantially the same  
as the wavelength  $\lambda_m$  of the microwave in the rectangular  
radiating waveguide.

20 There are provided the slot array antenna and a  
plasma processing apparatus, which are capable of  
increasing the plasma density in the plasma-processing  
chamber.